

Logan County

Estimated Economic Impact of Agriculture, Food, and Food Processing Sectors

6/11/2018

Using the most recent IMPLAN data available (2016) adjusted for 2018, 12 agriculture, food, and food processing sectors were analyzed to determine their overall contribution to the Logan County economy.¹

These 12 sectors have a total direct output of approximately **\$75.8 million** and support **368 jobs** in Logan County. Running the model for all 12 sectors simultaneously produces the following results:

Agriculture, Food, and Food Processing Sector Contribution to Overall Logan County Economy						
Impact Type ²	Employment	% Employment	Total Value Added ³	Total Value Added % of Gross Regional Product ⁴	Output ⁵	Output % of Gross Regional Product
Direct Effect	367.5	17.16%	\$10,485,424	9.07%	\$75,773,200	65.55%
Indirect Effect	111.8	5.22%	\$8,505,070	7.36%	\$14,991,278	12.97%
Induced Effect	39.8	1.86%	\$2,471,779	2.14%	\$4,529,445	3.92%
Total Effect	519.1	24.23%	\$21,462,273	18.57%	\$95,293,923	82.43%

As shown in the above table, agriculture, food, and food processing sectors support **519 jobs**, or **24.23%** of the entire workforce in the county. These sectors provide a total economic contribution of approximately **\$95.3 million**, roughly **82.43% of the economy**.

Another metric used to calculate the importance of sectors in an economy is their value added as a percentage of GRP. Total value added by the 12 agriculture, food, and food processing sectors is approximately **\$21.5 million**, or **18.57% of the GRP**. This indicates that personal income, business income, and taxes generated by these sectors account for **18.57% of the total economy**.

The following tables document the top industries affected by employment and output, as well as a listing of all industries that were analyzed.

¹ Article on building a contribution analysis in IMPLAN that avoids double counting:

http://www.implan.com/index.php?option=com_content&view=article&id=660%3A660&catid=253%3AKB33&Itemid=70

² Direct, indirect, and induced effects sum together to estimate the total economic contribution in the state. **Direct effects** capture the contribution from agricultural and food products. **Indirect effects** capture the economic benefit from farms and agricultural businesses purchasing inputs from supporting industries within the state. **Induced effects** capture the benefits created when employees of farms, agricultural businesses, and the supporting industries spend their wages on goods and services within the state.

³ Value added = labor income + indirect business taxes + other property type income.

⁴ GRP = final demand of households + governments expenditures + capital + exports - imports - institutional sales.

⁵ Output = intermediate inputs + value added.

In the top ten agriculture, food, and food processing sectors by employment, the beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming sector is the top employer with **193 employees**. This table also shows the amount of jobs that are created by the agriculture industry in Logan County.

Top Ten Agriculture, Food, and Food Processing Sectors by Employment		
Sector	Total Employment	Total Output
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	192.9	\$25,008,380
Grain farming	111.8	\$44,149,133
Wholesale trade	29.0	\$6,330,749
Support activities for agriculture and forestry	24.3	\$2,041,697
Real estate	17.0	\$1,272,371
All other crop farming	15.2	\$1,227,294
Animal production, except cattle and poultry and eggs	14.3	\$1,805,162
Commercial hunting and trapping	14.1	\$80,087
Securities and commodity contracts intermediation and brokerage	9.4	\$576,284
Truck transportation	8.0	\$1,543,316

The grain farming sector directly contributes approximately **\$44.1 million** to the Logan County economy. The table below also shows the amount of revenue that is generated in other industries by having a strong agriculture industry.

Top Ten Agriculture, Food, and Food Processing Sectors by Output		
Sector	Total Employment	Total Output
Grain farming	111.8	\$44,149,133
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	192.9	\$25,008,380
Wholesale trade	29.0	\$6,330,749
Support activities for agriculture and forestry	24.3	\$2,041,697
Animal production, except cattle and poultry and eggs	14.3	\$1,805,162
Truck transportation	8.0	\$1,543,316
Owner-occupied dwellings	0.0	\$1,279,522
Real estate	17.0	\$1,272,371
All other crop farming	15.2	\$1,227,294
Oilseed farming	1.0	\$1,092,563

Below is a summary of all agriculture data with employment levels and output level. These values can tell how many jobs are represented by each agriculture, food, and food processing sector and the output they contributed to the Logan County economy.

All Agriculture, Food, and Food Processing Sectors		
Sector	Total Employment	Total Output
Oilseed farming	1.0	\$1,092,563.41
Grain farming	111.8	\$44,149,132.51
Greenhouse, nursery, and floriculture production	3.4	\$354,963.25
All other crop farming	15.2	\$1,227,294.35
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	192.9	\$25,008,380.14
Poultry and egg production	0.0	\$6,048.55
Animal production, except cattle and poultry and eggs	14.3	\$1,805,161.56
Commercial hunting and trapping	14.1	\$80,086.58
Bread and bakery product, except frozen, manufacturing	5.8	\$575,779.79
Frozen cakes and other pastries manufacturing	0.1	\$18,872.05
Farm machinery and equipment manufacturing	2.5	\$949,586.67
Veterinary services	6.2	\$505,330.71

All 105 counties in Kansas have an IMPLAN model and an agriculture, food, and food processing contribution summary. These values do not factor in the retail environment of food sales. Food retail is important, but in order to provide the most accurate picture of what production agricultural and processing contributes to Logan County, the retail sector was omitted.